IN THE CLAIMS:

Please cancel Claims 17 and 21 without prejudice or disclaimer of the subject matter recited therein.

Please amend Claims 16, 18, 20 and 22 as follows.

Claims 1-15. (Cancelled).

16. (Currently Amended) A sample processing apparatus comprising:

a probe;

probe moving means for moving the probe such that the probe is brought into contact with a part of a sample;

adhering means for adhering the probe to the part of the sample;

ion beam generation means for irradiating the sample with an ion beam to separate the part of the sample from a remaining body of the sample; ~~and~~

detection means for detecting a signal emitted from the sample in response to irradiation with an ion beam generated by the ion beam generation means; and

temperature controlling means for controlling temperatures of the probe and the sample individually to prevent a temperature change of the part of the sample when the probe is bought into contact with the part of the sample and when the sample is irradiated with an ion beam by the ion beam generation means.

wherein the emitted signal is secondary electrons or secondary ions, and the detection means includes a first detector for detecting the secondary electrons and a second detector for detecting the secondary ions.

Claim 17. (Cancelled).

18. (Currently Amended) A sample processing apparatus according to claim ~~17~~ 16, wherein the ion beam generation means generates a focused ion beam for processing the sample to almost separate the part of the sample from the remaining body of the sample before the probe is brought into contact with the part of the sample and completely separate the part of the sample after the probe is adhered to the sample.

19. (Previously Presented) A sample processing apparatus according to claim 16, wherein the temperature of the sample is regulated at a temperature where water present in the sample is solidified.

20. (Currently Amended) A sample processing apparatus according to claim ~~17~~ 16, wherein the ion beam generation means, the detection means and the probe are provided in a chamber with a controllable atmosphere.

Claim 21. (Cancelled).

22. (Currently Amended) A sample processing apparatus comprising:

a probe;

probe moving means for moving the probe such that the probe is brought into contact with a part of a sample;

adhering means for adhering the probe to the part of the sample;

ion beam generation means for irradiating the sample with an ion beam to separate the part of the sample from a remaining body of the sample;

detection means for detecting a signal emitted from the sample in response to irradiation with an ion beam generated by the ion beam generation means;

temperature controlling means for controlling temperatures of the probe and the sample individually to prevent a temperature change of the part of the sample when the probe is bought into contact with the part of the sample and when the sample is irradiated with an ion beam by the ion beam generation means; and

detection means for detecting a signal emitted from the sample in response to irradiation with an ion beam generated by the ion beam generation means,

~~according to claim 17,~~ wherein the detection means includes a first detector for detecting secondary electrons and a second detector for detecting secondary ions.